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Informed Markets as Policy Instrument for Environmental Governance of Buffer Zones around Protected Areas: a global context and European cases.

Henrik Egelyng¹.

Abstract

In the continuum between command & control (CaC) regulation on the one hand and economic policy instruments on the other, the institutional location of "protected" areas is often perceived as solidly within the reign of CaC, as a means to safeguard a piece of the earth biosphere as "nature". In contrast, the human economic sphere is a space where "the market" rules. Buffer zones exist to help separate and shield "nature" from the human economy and yet establish a link or corridor between society and nature. Therefore buffer zones are expected to combine, embody and fulfill policy objectives offering both nature protection and economic functions. The latter may be limited to local livelihood purposes, but may also involve integration into a larger regional, national or international economy. Based on inspiration from development and implementation of Natura 2000 areas and the evolution of National Parks in Scandinavia (Denmark), this paper sets out to explore the theoretical rationale and record of using market based environmental governance in the form of Geographical Indications (GI's) and organic agriculture certification (OAC), respectively, in buffer zones, to potentially serve the dual purpose of conservation and sustainable livelihoods.

Keywords

Bufferzones. Protected Areas. Economic Policy Instruments. Environmental Governance.

Geographical Indications. Certified Organic Agriculture. Europe. Scandinavia.

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INTRODUCTION

Ten years ago only around 1 (one) per cent of the worlds protected areas were estimated as 'totally secure' from a conservation perspective. 70 per cent of Europe's protected areas were exceeding critical loads for pollutants. (Dudley, Hockings, and Stolton 2004).

Whether or not this situation has since deteriorated or improved, the realization that protected areas cannot meet all conservation goals, allows focus on the conservation value of lands surrounding protected areas (Leroux and Kerr 2012). Only a few countries have legislations covering buffer zone management, according to UNESCO. Even in countries having such legislation, it has proven difficult to enforce existing rules set forth to maintain a sustainable use of buffer zones, surrounding the core of protected areas. By definition then, the rules of the [governance] game in these areas are dominated by market institutions – buffer zones are spaces where markets forces play out. In these zones, the only choices left are of who governs these market forces and how.

A forerunner of a more contemporary concept of non-state-market-based environmental governance (e.g. O'Neil, K. 2009, Cashore 2002), the 1990s literature on environmental governance called for policy-makers to consider 'Harnessing the Market for the Environment' (Roodman 1998) and use economic instruments for environmental management (OECD 1993, Panayotou 1994, Barde 1994, Baden 1994, Repetto et al 1992, Anderson and Leal. 1991). While this literature included ideological perspectives on the regulatory efficiency of state oriented command and control (CaC) approaches versus economic policy instruments, many of its authors shared a pursuit of efficiency

compared to traditional regulation². At the level of practical policy-making, however, this problem translates into a continuing challenge – or responsibility - of identifying a workable mix of environmental policy instruments. The same decade saw the disciplines of environmental and ecological economics enter the literature on nature protection³.

Despite these developments, and despite the concrete fact that certification as 'organic' dates back to the late 1960's, hardly any of the early contributions to the literature on economic environmental instruments⁴ and environmental/ecological economics of nature protection provided analysis or hypotheses relating to the practice or potential of OAC as an economic environmental governance instrument, in the context of nature conservation. Indications that organic agriculture was about to be "born" as such an instrument in the context of nature protection areas, was not found in the "conservation" literature until the turn of the new millennium (Stolton 1999), and it remains a rare instrument in the context of protected areas, although an increasing share of the literature on conservation of biodiversity refers to it at least indirectly (e.g. Ring, Jurgens, Elmqvist, Wittmer and Sukhdev 2010; 17).

This paper therefore investigates prospects for public policy relying more on economic policy instruments to pursue a combination of conservational purposes and economic opportunities within

² The discourse on the relative merit of environmental economic instruments versus CaC is well rooted theoretically in the "childhood" of environmental policy, when a classical contribution to the theory of environmental policy - Baumol and Oates (1988) - addressed the problem of environmental economic externalities, and the problems and potentials of using market instruments to tackle environmental problems.

³ This was reflected both in World Bank studies on "Integrating Environmental Concerns into Economic Decision Making" and national park management (Munasinghe, M. and Wilfrido Cruz. 1995, Monasinghe, M. and J. McNeely 1994) and scholarly work e.g. on "Designing Institutions for Environmental and Resource Management" (Loehman and Kilgour eds 1998).

⁴ By the mid 1990s, economic environmental policy instruments was still regarded a virgin field (Köhlin and Sterner. 1992; Panayotou 1994) and as far as environmental policies were concerned most OECD countries still relied and rely on command-and-control regulatory instruments. Today, of course, multi-level governance and even governance in areas of 'limited statehood' is a new normal (Bache and Flinders 2004, Risse T. 2011.) – and so our expectation with regard to finding empirical confirmation in the form of combined use of OAC and GI's even stronger.

buffer zones of protected areas (PA). The economic policy instruments of particular interest to us is use of the market instruments or institution of the Geographical Indications (PGI, PDO) and the 'organic' agriculture certification (OAC). Given that we seek to explore the use of these instruments in a very specific geographical (and institutional) context, with a limited geographical location and boundary (buffer zone of a PA), geographical indications (GI) and landscape labels, or rather, the combination of OAC and GI, is what really has our interest – corresponding to what in French might probably be framed more concisely as the potential of a market based 'terroir' approach to buffer zoning.

Methodology

Formal categories and definitions exist to distinguish between and classify different types of protected nature areas vis-à-vis surrounding landscapes, including buffer zones (see for instance Phillips 2002). This paper opts for the broadest possible meaning of the word "buffer zone" to simply mean any area separating a nature reserve – possibly involving a strict governance regime based on strong ambitions and regulations aiming to preserve the area as close to "nature" as possible – from the areas and territories in which the human economy operates. Consequently, a literature search - using relevant terms⁵ - was made using a high level of abstraction (certification in general) in an effort to cast the net broadly and proceed to explore, in the case of nature conservation and buffer zones, the extent to which the potential of GI's and OACs as institutional vehicles or environmental policy instrument has been applied in practice. This pragmatic approach was adopted because (during literature search) an initially narrow definition proved overly exclusive, as the variation of the cases reported below with regard to details of the governance

⁵ Buffer zone/protected area/nature park/park AND eco-label, buffer zone/protected area/nature park/park AND certification, buffer zone/protected area/nature park/park AND economic incentive(s), buffer zone/protected area/nature park/park AND PES, buffer zone/protected area/nature park/park AND logo, buffer zone/protected area/nature park/park AND protected area logo.

regimes was found to be large- and therefore also because the Danish National Park "Kongernes Nordsjælland", which currently has only an emerging governance regime, makes it relevant to study as a de-facto buffer zone. Internet search using Google, as well as the world database of protected areas (<http://www.wdpa.org>), the FAO homepage (www.fao.org), and IFOAM (www.ifoam.org) was also made, including use of the terms mentioned above. The first literature search along these lines (above) was done in 2009, the second in 2014. In addition, on the Danish case of "Kongernes Nordsjælland" and the FAO report, telephone interviews were conducted⁶.

A theoretical prelude for market based [multilevel] environmental governance.

Some of the current academic discourse on the future of protected areas stresses how 'neoliberalism' influenced the nature and direction of conservation, and commodified nature (e.g. Camargo 2014, García-Amado, Pérez and García 2013). Similarly, part of the international relations discourse on non-state market driven global environmental governance (NSMD GEG), suggest that 'alliance building' of 'capitalist forces' realign their material basis for dominance. It is understood that the governance prospects are gloomy – little or nothing can be done [according to that particular perspective] (O'Neil, K. 2009; chapter 7). Our paper evolved against such global backdrops of skepticism, and case studies – particularly those in a developing world context⁷ – stressing institutional requirements for or skepticism towards materialization of local benefits from market based conservation (Liliehalm and Weatherly 2010, Lybbert, Barret and Narjisse 2002). We have chosen therefore to give NSMD GEG a chance, as harsh realities call for pragmatism

⁶ I wish to acknowledge the kind assistance of Ms. Elsebeth Dam Nordlund in carrying out the telephone interviews.

⁷ The idea that economic instruments could have potential as environmental policy instruments - in developing countries, was first presented already in the 1990s by the OECD (1994d; 1994e) and World Bank (1994b), i. a., on grounds including that environmental policies using market instruments such as subsidies, fees, market creation and deposit systems could – theoretically - be more poverty-oriented and more goal-efficient than command and control instruments, the latter including bans, permits, quotas, standards, use restrictions and zoning.

regardless of the possible validity of the theoretical analyses above. As pointed out by Charles Di Leva (2002), in the context of the United States, where e.g. three-fourths of all wetlands are in private Hands, 'constructive engagement of the private sector is necessary to protect nature and natural resources' - and therefore eco-labelling and certification could have potential in this regard (di Leva, C.E. 2002). And so studies like Hartig and Drechsler's (2009) simulating [private] land use decisions, driven by changing conservation costs and the conservation market are relevant. Hartig and Drechsler conclude that a combined analysis of ecological and socio-economic conditions should be applied when designing market instruments to protect biodiversity. While maybe [knowingly] naïve in say a neo-Gramscian perspective, such studies perhaps represent a more energizing perspective, in working towards pragmatic solutions. Also researchers working on biodiversity in the Oceans – providing scientific evidence that conservation and sustainability benefits of Marine Protected Areas (MPAs) are sufficient to justify incorporating credit for MPAs into certification protocols – work for solutions in the form of market instruments – certifications – designed to increase the resilience of surrounding fisheries and enhance local catches [Lester, Costello, Rassweiler, Gaines, and Deacon 2013].

The global context

Today's Europe is no stranger to 'hybrid governance structures that operate in between markets and hierarchies' - most recently Eastern European countries like Poland, the Czech republic and Slovakia has joined the club where 'labels and certification that can be issued by national park administrations for tourism businesses operating within or nearby protected areas' (Otto and Chobotová 2013). In Bulgaria, promoting SMEs play a key role in fostering 'ownership' of the [protected area] destination, key to maintain tourism revenue within PAs, as SMEs are considered more likely to buy locally and use local infrastructure. As early as in 1996 a case was made for

using a combination of OAC and – only implicitly/indirectly -Geographical Indications (GI's), as a means for achieving both nature conservation and economic functions, in the context of the newly independent Baltic countries: *"An opportunity is creation of a series of "green lungs" in and around the largest natural parks. Joint marketing of their products to the North European consumers (farm holidays with fishing, canoeing and riding and organic food and craft products) is an obvious, but hitherto unused possibility. Organic food from these areas could be marketed as not only organic but also as originating from a particular - specific – nature area, where the cultivation system is integrated in a landscape with high biodiversity, natural and cultural content."* (Egelyng 1996).

Years later, in 2002, "organic farming" had entered the Management Guidelines for IUCN Category V protected areas, with a section (5.3.4) and a case study of three parks/buffer-zones in Tuscany Italy (Phillips, Adrian. 2002: page 62). By 2004, the idea of integrating eco-labeling into protected area and buffer zone management had been put forward by at least one international organization, the FAO, recommending an *International Ecological Agricultural Initiative in Protected Areas and Buffer Zones* (Scialabba & Williamson, 2004). By 2010, the FAO had established Organic Research Centre's Alliance (ORCA) where, among other things, organic farming is promoted for a variety of reasons, including as a strategy for sustainable conservation in protected areas⁸ and by 2014 at least one FAO website displays a collection of (19) 'case studies' on 'organic agriculture in protected areas and buffer zones', one or two of which include specific information on certification (<http://www.fao.org/docrep/005/ad090e/ad090e.htm>).

Several research projects have shown an increase in biodiversity in organic fields, with increased species richness, from bacteria to mammals (IFOAM, 2005). However, organic standards targeting biodiversity are underdeveloped (Scialabba & Williamson, 2004) and a direct incorporation of

⁸ Phone interview on 11. august, 2009, by E.D. Nordlund with FAO Senior Officer, Nadia El-Hage Scialabba, FAO Rome, 11th of August 2009

protected area buffer zones within certification schemes has, for use as discussed in this paper, been found in only a few cases. In two or perhaps three cases an eco-label was used as a marketing tool in the "double" sense, of combining labeling of a certified organic (CO) product with a GI product: i.e a product from a protected area/nature reserve as a geographical denomination of origin.

One such example is included in the FAO collection, mentioned above: the case of Organic orange production to restore tropical forest in the Guanacaste Conservation Area, Costa Rica. Here a double labelling is used: organic certification and Rainforest Alliance certification – where the latter certification Del Oro has maintained natural ground cover within its orange producing areas, prohibited hunting and fishing on its properties and attempted to protect waterways with buffer strips of native forest.

One emerging case is reported from Arusha, Tanzania, where bee-keepers in the Usa River area seek official permit to label their honey products as produced within the Arusha National Park buffer zone (Personal conversation on 5th march 2014, with representative of a Usa River Women Beekeepers association, Arusha, Tanzania). Similarly, in Europe, Honey collected in and around PA's are confirmed high value products due to superior quality of such 'origin' Honeys – indeed honey have been found to functions as fingerprint of the environment where beehives are situated, and so bekeeping works as monitoring systems for the level of [un]contamination of the environment [protected areas]. (Canini, Pichichero, Alesian, Canuti & Leonardi 2009). An established example can be found in Italy – The State Natural Reserve of Torre Guaceto - where a project has been implemented by the Management Consortium of the Natural Reserve, to give financial benefits to local farmers situated in the park through production of organic olive oil. The farmers have been given technical support, subsidized their certification cost, and invited to participate in workshops with a view to help about an eased transition. The organic olive oil is marketed with the organic label (certified by ICEA, who has also been involved in the project) as

well as a protected area logo (http://www.simoca.org/dwld/as_leaflet.pdf, accessed the 11th of August 2009). The organic label is well known to consumers⁹ while the protected area logo offer traceability of the product and represent a reference to conservation of natural habitat, relying on certification such as Protected Designations of Origin (PDO), Protected Geographical Indications (PGI) and Traditional Specialities Guaranteed (TSG), complemented by Certification of "Bio Holiday Farms" or Bio-hotels in the area, in compliance with the ICEA standard of Eco-Bio Tourism. The certification of environment-friendly tourist infrastructures falls within a wider and more ambitious project aiming at restoring the Italian rural 'patrimony' with a view to promoting sustainable tourism. ICEA's Inspectors visit every Holiday Farm associated with ICEA in order to check compliance with the ICEA standard. An early case, in line with Petheram and Campell's (2010) idea of hybridized schemes, is use of eco-labels in the Yok Don National Park, which lies in the Dac Lac Region of Vietnam. The national park lies within an important coffee growing area, where land clearance due to cash crop production is a major cause of deforestation. Encouragement of organic shade grown coffee production in the buffer zone of the protected area, in combination with export marketing under the Yok Don eco-label, was seen as a way to promote a more environmental friendly land-use practice as well as being a financial strategy for the coffee-farmers (IUCN, 2003 and Emerton et al, 2004).

Organic products are often found in the combination with other eco-labels, which in a conservation as well as livelihood perspective can bring extra benefits as they impose other standards to the production scheme. Rainforest Alliance is one such label, which works to conserve biodiversity and ensure sustainable livelihoods (www.rainforestalliance.org, accessed 30th March 2014). Rainforest Alliance work with partners including Sustainable Agriculture Network (SAN) and FSC and so this

⁹ The ministerial decree whereby ICEA was registered in the list of private certification bodies authorized to inspect and certify in the above sectors, was published in the Gazzetta Ufficiale No. 139 of 16 June 2004

eco-label has – and the Costa Rica example showed - potential to work within buffer zones of protected areas working for conservation as well as financial benefits for the local farmers. In El Salvador, e.g., coffee generates 30-50 percent of the export earnings. In the 1970's coffee leaf rust infections lead to the replacement of tradition shade-grown coffee varieties to sun tolerant varieties responding well to fertilizers and pesticides. Not much land was under protection leading to forest clearance, habitat degradation and decrease of species diversity and abundance. In 1998 a GEF project was implemented, promoting organic and biodiversity friendly coffee production. Organic standards do not necessarily contain specific criteria for shade cover and not all organic coffee plantations in the area has enough shade-grown trees. (Scialabba & Williamson, 2004). With GEF assistance, SalvaNatura and Rainforest Alliance started a certification program (ECO-OK), certifying shade-grown coffee. The objective was to improve the management of the buffer zone in the national parks "El Imposible" and "Los Volcanes", which is part of the Mesoamerican Biological Corridor. The buffer zones thereby act as corridors for wildlife, linking national parks (<http://www.fao.org/docrep/005/ad090e/ad090e.htm>, accessed the 30th March, 2014). In the Bosawas Biosphere Reserve in the northern Nicaragua, Rainforest Alliance standards have been used as a management tool in an attempt to discontinue the deforestation of the reserves buffer zone at the same time combat poverty (<http://www.rainforest-alliance.org/profiles/documents/ECOMProfile-withhorizon.pdf>, accessed July, 2009).

The Danish Case

One source of inspiration for this paper is the character of newspaper reported debates of local politics following a top level decision to establish what is now at least six National Parks in Denmark (Bill passed in Danish Parliament 2007). While taking place in one of the richest countries in the world (in terms of GNP/capita), many of the partaking landowners voiced a rather sceptic

view on the plans of protecting nature in their area. The author therefore speculated whether a more innovative institutional regime to provide win-win solutions for nature and farmers located in buffer zones to protected areas could create a more positive situation, in and beyond Denmark, and developed the hypothesis that a combination of certification and GIs could add economic value to (production in) these buffer zones and thereby help change the attitudes of buffer zone inhabitants to swing towards favoring nature protection and accepting "restrictions" in turn for privileges. In Denmark, northern part of Zealand, the National Park 'The North Zealand of the Kings' is in the process of implementation. Forest, agricultural fields, historical monuments and towns all forms part of the national park. (Lund, D.H. 2012, <http://www.danmarksnationalparker.dk/English/Nordsjaelland/EnglishNordsjaelland.htm>, accessed March, 2014). No restrictions on the management of the agriculture lands are implemented and sustainable farming will not be forced upon landowners. Farmers in this region envision tax-payer, public purse funded subsidies, as the conventional policy instrument, for any conversion to more environmentally friendly sustainable land use practices, such as organic agriculture or land use offering corridors for wildlife. In contrast to the Italian case, use of an eco-label combined with the national park logo as an economic policy instrument, to achieve natural conservation along with marketing of products from the park area, remains a potential. A "The North Zealand of the Kings" logo was not included in the plan and any double label scheme would be up to the local farmers to implement (Forester, Ole Andersen, Danish [Forest and] Nature Agency, interviewed 31st of July 2009).

Conclusion

This paper investigated the prospects for using a combination of organic certification and geographical indications as economic policy instruments to help strengthen the integrity of

protected areas through rewarding commodity producers in buffer zones through green 'branding' of their products and thus promote environmentally sustainable livelihoods of the buffer zone producers. It shows that already in 2002 organic farming was promoted as part of the IUCN Management Guidelines for IUCN Category V protected areas, and that as early as 2004, the FAO acknowledged a need to develop certification schemes and labels in a context of protected areas and buffer zones. Enough cases were found demonstrating that while still not widespread, today a combination of OAC and GI is sometimes seen used as institutional vehicles of environmental governance in the context of nature conservation in buffer zones.

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